



## FIG. 2

A

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GTCCTGCATA TGAATGGAGC TCCAGAAAGT CCTGCATATG AATGGAGGCG AAGGCGAAGC AAGCTACGCC AAGAATTCAT CTTCAATCA 90
ACTGGTCTCT GCCAAGGTGA AACCTGTCTT TGAACAATGC GTACGGGAAT TGTTCGGGCG CAACCTGCCC AACATCAACA AGTGCATTAA 180
AGTTGCAGAT TTGGGATGCG CTTCGGGACC AAACACACTT TTAACCGTTT GGGACACTGT ACAAGATATT GACAAGTTA AGCAAGAAAT 270
GAAGAATGAA TTAGAAGCTC CCACCATTTCA GGTTTTTCTG ACTGATCTTT TCCAAAATGA TTCAATTTCG GTTTTCATGC TGCTGCCAAG 360
CTTCTACCGC AAACCTTGAG AAGAAAATGG ACGCAAAATA GGATCGTGCC TAATAGCCGC AATGCCCTGC TCTTTCCACG CGACACTCTT 450
CCCCGAGGAG TCCATGCATT TTTTACACTC TTCTTACAGT CTTCACTTTT TATECCAGGT TCCAGCGGT TTGGTGACTG AATTGGGGAT 540
CACTCGGAAAC AAAAGGAGCA TTTACTCTTC CAAGCAAGT CTTCCGCGCG TCCAGAAAGC ATATTTGGAT CAATTTACGA AAGATTTTAC 630
CACATTTTAA AGGATGCGTT CGGAAGAGTT GCTTTCAGT GGCCTGAATG TCCTTACTTG CATTTGTAAA GGAGATGAAT GCGAGGGCCC 720
CAATACCATG GACTTACTTG AGATGGCAAT AAACGACTTG GTTCTGAGG GACTCTGGG GGAAGAAAAA TTGACAGTT TCAATGTTCC 810
AATCTATACA GCTTCAGTAG AAGAAGTAAA GTGCATGGTT GAGGAGGAAG GTTCTTTTGA AATTTTATAC TTGCAGACTT TTAAGCTCCG 900
TTATGATGCT GGGTCTCTTA TTGATGATGA TTGCAAGTA AGATCCCAT TCCCCAGTATA CAGCGATGAA CATGCTAGAG CAGCGCATGT 990
GGCATCATTAA ATTAGATCAG TTTACGAACC CATCTAGCA AGTCAATTTT GAGAAGCTAT TATACCTGAC ATATTTCCACA GGTTTGCGAG 1080
GAATGCAGCA AAGGTTATCC GCTTGGGCAA AGGCTCTCTAT AATAATCTTA TCAATTTCTCT TGCCAAAAAA CCAGAGAAAT CAGACATATA 1170
AAAGCTTTGT TTTAGTTGGT TTTTGTGTTA TGGGTTGTTT TCTGATACGG GGAAGGATT CAGTGGCGTT GGGGTCTCTT CCGAGTATG 1260
TACTTTTAT ATTATTAGT GGTGTATAAT TATTATGTTA CATTTGTATA TTGTAATAA AAGTGACGTA CAAAAATAA ATATTTTCAT 1350
AAAAAAAAA
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B

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TTTAGCAGTC CCAATTGCAT TTATGTACAA GTCTCTGCATA TGAATGGAGC TCCAGAAAGT CCTGCATATG AATGGAGGCG AAGGCGATGC 90
AAGCTACGCC AAGAATTCAT CTTCAATGA ACTGGTCTCT GCCAAGGTGA AACCTGTCTT TGAACAATGC GTAGGGGAAT TGTTCGGGCG 180
CAACTTGCCC AACATCAACA AGTGCATTAA AGTTGCGGAT TTGGGATGCG CTTCGGGACC AAACACACTT TTAACAGTTT GGGACATTGT 270
ACAAAGTATT GACAAGTTA GCGAAGAAAT GAAGAATGAA TTAGAAGCTC CCACCATTTCA GGTTTTTCTG ACTGATCTTT TCCAAAATGA 360
TTTCAATTTCG GTTTTCATGT TGCTGCCAAG TTTCTACCGC AAACCTTGAG AAGAAAATGG ACGCAAGATA GGATCGTGCC TAATAGCCGC 450
AATGCCCTGC TCTTTCCACG CGACACTCTT CCAATGCAAT TTTTACACTC TTCTTACAGT CTTCAATTTT TATCCCAAGT 540
TCCAGCGGT TTGGTGACTG AATTGGGGAT CACTGCGAAC AAAAGGAGCA TTTACTCTTC CAAGCAAGT CTTCCGCGCG TCCAGAAAGC 630
ATATTTGGAT CAATTTACGA AAGATTTTAC CACATTTTAA AGGATTCGTT CGGAAGAGTT GCTTTCAGCG GGCCTGAATG TCCTTACTTG 720
CATTTGCATA GGAGATGAAT TCGACGGCCC GAATACCATG GACTTACTTG AGATGGCAAT AAACGACTTG GTTGTGAGG GACATCTGGA 810
GGAAGAAAAA TTGACAGTT TCAATGTTCC AATCTATGCA GCTTCAGTAG AAGAATTAAG GTGCATAGTT GAGGAGGAAG GTTCTTTTGA 900
AATTTGTATC TTGGAGACTT TTAAGCTCCG TTATGATGCT GGGTCTCTTA TTGATGATGA TTGCAAGTA AGATCCCAT CCCCAGATA 990
CAGCGATGAA CATGCTAGAG CAGCGCATGT GGCATCATT CTTAGATCAG TTTACGAACC CATCTGCGA AATCAATTTT GAGAAGCTAT 1080
TATACCTGAC ATATTTCCACA GGTTTGGGAC GAATGCAGCA AAGGTTATCC GCTTGGGCAA AGGCTCTCTAT AATAATCTTA TCAATTTCTCT 1170
TGCCAAAAAA CCAGAGAAAT CAGACATATA AAAGCTTTGT TATTAGTTGGT TTTTGTGCTA TGGTTGTTT TCTGATACGG GGAAGGATT 1260
TAGTGGCGTT GGGGTCTCAA AAAAAAATA AAAAAAATA AAAAAAATA
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C

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CTTTGGCAGT CCAATTTTGA TTATGTACAA AGTCTGCAT ATGAATGGAG CTCGAAGAAG TCTCGCGAT GAATGGAGCG GAAGCGGATA 90
CAAGCTACGC CAAGAATTCA GCTTCAATC AACCTGTCTT GCCAAGGTGA AACCTGTCTT TGAACAATGC GTAGGGGAAT TGTTCGGGCG 180
CCAATTTGCC CAACATCAAC AAGTGCATTAA AGTTGCGGAT TTGGGATGCG GCTTCTGGAC CAACACACTT TTAACAGTTT GGGACATTGT 270
AGTTGGCCAG GAAGAGAGA ATGAATTAGA AGTGCAGATT TTTGGAATGA TCTTTTCCAA AATGATTTGA ATTCGGTTTT 360
ATTTCAATTC GGTTTTCAAG TTGCTGCCAA GCTTCTACCG CAACCTTGAG AAGAAAATGG GAGCGAAAAT AGGATCGTGC CTAATAGGGG 450
CAATGCCCGG CTCTTCTAC AGCAGACTCT TCCCGGAGCA GTCCATGCAT TTTTACACT CTGTTACTG TCTTCAATGG TTATCTCAGG 540
TTCTAGCGCG TTGGTGACT GAATGGGGA TCAATGATGA CAAGGGAGC ATTTACTCTT CCAAGCAAG TGTCTGCCG GTCCAGAGG 630
CATATTTTGA TCAATTTAC AAGAATTTTA CCACATTTCT AAGGATTCAT TCGGAAGAT TGTTTTCA TGGCCGAATG CTCCTACTT 720
GCATTTGTAA AGGATTTGAA TTAGCGCCC GGAATGCCAT AGACTTACTT GAGATGGCAA TAAAGCACTT GGTTTGTGA GGCATCTGG 810
AGGAAGAAAA ATTGATAGT TTAATCTTC CAGTCTATAT ACCTTCACTA GAAGAAGTAA AGTGCATAGT TGAGGAGGAA GGTCTTTTG 900
AAATTTTATA CTTGGAGACT TTTAAGGTCC TTTACGATG TGGCTTCTCT ATTGACGAT AACATATTAA AGCAGATAT GTGCTATCT 990
CCGTAGAGCG AGTTTACGAA CCACTCTCCG CAAGTCATT TTGGAAGAGC ATTATACCTG ACATATTCCA CAGGTTTGGC AAGCATGAG 1080
CAAGGTTCT CCCCCTGGG AAGGCTTCT ATAATATCT TATCATTTCT CTCGCCAAAA AGCCAGAGAA GTCAGAGCTG TAAAGTTTTG 1170
TTTTTGTGT GGGGAAGGA ATAAGTGCCG TTGGGGTCT TCGGTTTGA TATTATATTG TTTTGTATCC GTAATAAAG 1260
TGTGTGTAA GAATAAGATA TTGACATAT ATTATTTTCA AAAAAAATA AAAAAAATA
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D

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AGCAGTCGCA ATTCGATTGT CTTGCATATG AATGGAGCTC CAAGAAGTCC TGCATATGAA TGAAGTGAA GCGGATACAA GCTACGCCAA 90
GAATGCATCC TACAATCTGG CTCTTGCCAA GGTGAAACCT TTCTTGAAC AATGCATAGC AGAATTTTGT CCGGCCAACT TGCCCAACAT 180
CAACAAGTGC ATTAAGTTTG CGGATTTGGG ATGCGCTCTT GACCAAAACA CACTTTTAAAC AGTGGGGGAC ATTGTGCAAA GTATTGACAA 270
AGTTGGCCAG GAAGAGAGA ATGAATTAGA AGTGCAGATT TTTGGAATGA TCTTTTCCAA AATGATTTGA ATTCGGTTTT 360
CAAGTTGCTG CCAAGCTTCT ACCGCAAACT CGAAGAGGAA AATGGAGCA AGATAGGATC GTGCCTAATA AGCGCAATGC CTGGCTCTTT 450
CTACGGCAGA CTCTTCCCGG AGGAGTCCAT GCAATTTTGT CACTCTTGT ACAGTGTTC TGGTTATCT CAGGTTCCCA GCGGTTTGGT 540
GATGGAATTG GGGATTTGGT CAAGAAGGAG GAGTATTTAC TCTTCCAAAG GATGTGCTCC GCGCGTCCAG AAGGCAATT TGGATCAATT 630
TAGCGAAGAT TTTACCATAT TTTCAAGGAT TCAATCGAAA GAGTGTGTTT CAGGTGGCGG AATGCTCTT ACCTGCAATT GTAAAGTAGA 720
TGAATTCGAC GAACCGAATC CCTAGACTT ACTTGACATG GCAATAAAGC ACTTGATTGT TGAGGGGACT CTGAGGGAAG AAAAAATGGA 810
TAGTTTCAAT ATTCATTTCT TTACACTTTC AGCAGAAGAA GTAAAGTGCA TAGTTGAGGA GGAAGGTTCT TCGCAATTGT TATATCTGGA 900
GACTTTTAA GCGCATATG ATGCTGCTT CTCTATTGAT GATGATTACC CAGTAAGATC CCAATGAACA ATTAAGCAAG AGTATGTGGC 990
ATCATTAAT AGATCAGTTT ACGAACCCAT CTTGCAAGT CATTTTGGAG AAGCTATTAT GCTCACTTAA TTCCACAGCG TTGCGAAGCA 1080
TGACGCAAG GTTCTCCACA TGGGCAAGG CTGCTATAAT AATCTTATCA TTTCTCTGCG CAAAAAGCCA GAGAAGTCAG ACGTGTAAGA 1170
GTTTGTGTT AGTTGTTTGT TGTGCGGTG GGGGTCTTTC GGGTATTGTC GTTTGTGATT CATAATAAAA GTGATGTGCA AGAATAAGAT 1260
ATTATGATCA ATATTTTCAT AAAAAAATA AAAAAAATA
```

# FIG. 3

MXMT1	MELQEVLMNEGEGDTSYAKQASTN-LALAKVKFFLEQCTRELLRANLEN	49
MTL1	.....G:::EA:::S:F:Q:V:::V:::V:::.....	50
MTL2	.....G:::A:::S:F:Q:V:::V:::VG:::.....	50
MTL3	.....R:G:::SA:Q:V:::V:::V:::.....	50
MXMT1	INKCIKVADLGCAAGENTLLTVRDTVQSTDRVQPEERNELEPMTIQIFLN	99
MTL1	.....W:T:::K::M:::V::T	100
MTL2	.....R:M:::V::T	100
MTL3	.....K:::.....	100
MXMT1	DLFQNDENSVFKLIPSFYRKLEKNGRKIGSCLISAMPGSFYGRIFPEES	149
MTL1	.....M:::A:::H:::.....	150
MTL2	.....M:::A:::H:::.....	150
MTL3	...P:::S:::.....	150
MXMT1	MHFLHSCYSVHMLSQVPSGLVTELGYGANKGSTYSSKGRPPVQKAYLDQ	199
MTL1	.....S::LQF:::T::T::R:::ASP:::.....	200
MTL2	.....S::LQF:::T::T::R:::ASP:::.....	200
MTL3	.....CLQ:::T::ST:::AS:L:::.....	200
MXMT1	FTKDFTFELRIHSEKELFSRGRMLTCTICKVDEFDERNPLDLLMAINLLI	249
MTL1	.....MR:E::L:::G::C:G::TM::E:::V	250
MTL2	.....R:E::L:::G::G::TM::E:::V	250
MTL3	.....E::H:::GE:L:AR:AI::E:::V	250
MXMT1	VEGLLEEKLDGFNIPFFTPSASEVKCTIVEEGSCETLYLETFKAHYDAA	299
MTL1	A::R:G:::V:IY:A:V:::M:::F:::Q:::LR::G	300
MTL2	:::H:::V:IYAA:V::L:::F:::LR::G	300
MTL3	:::H:::L:VYI:::F:::VL::G	300
MXMT1	FSIDDDYPVRSH-----EQIKAEYVASLIRSVYEPIASHFGEADMPDL	343
MTL1	.....CQ:::SPVYSD:HAR:AH:::I::I	350
MTL2	.....CQ:::SPEYSD:HAR:AH:::L:::N:::I::I	350
MTL3	.....EH-----SV:A:::I::I	337
MXMT1	FHFLAKHAQKVLHMGRCYNNLLISLAKGPERSDV	378
MTL1	:::F:TN:::IRL::F:::I	385
MTL2	:::F:TN:::IRL::F:::I	385
MTL3	:::F:::FL::F:::372	

## FIG. 4

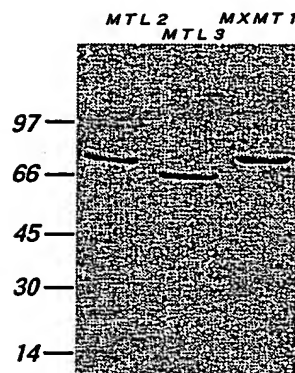
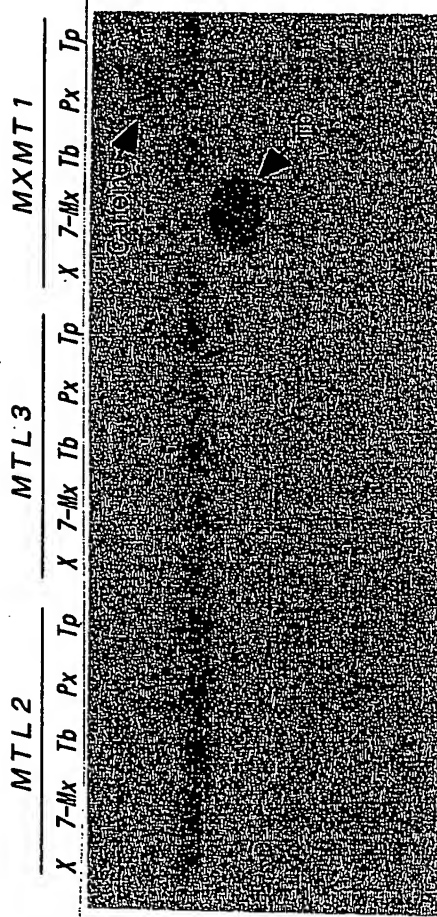


FIG. 5



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**FIG. 6**

